

Product Description



Plastic-Encapsulate Transistors

FEATURES

Complimentary to S8550

MARKING: J3Y

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	25	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current -Continuous	I_C	0.5	A
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

S8050 (NPN)



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = 100\mu\text{A}, I_E = 0$	40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 1\text{mA}, I_B = 0$	25			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = 100\mu\text{A}, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40\text{V}, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = 20\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	$H_{FE}(1)$	$V_{CE} = 1\text{V}, I_C = 50\text{mA}$	120		350	
	$H_{FE}(2)$	$V_{CE} = 1\text{V}, I_C = 500\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE} = 6\text{V}, I_C = 20\text{mA}$ $f = 30\text{MHz}$	150			MHz

CLASSIFICATION OF h_{FE}

Rank	L	H	
Range	120-200	200-350	

S8050 Typical Characteristics

